

Application No. 10/601,927
Amendment dated December 27, 2006
Reply to Office Action of September 27, 2006

REMARKS

Claims 1-3, 5-13 and 15-24 are pending. Claim 23 is cancelled herein. Accordingly, claims 1-3, 5-13, 15-22 and 24 are at issue.

Initially, the indication that claim 15 recites allowable subject matter is noted with appreciation. Accordingly, claim 15 is rewritten in independent form to recite the limitations of its base claim 13 so that claim 15 should now be in condition for allowance.

Claims 1-3, 5-13, and 16-24 stand rejected under 35 USC §103(a) as unpatentable over U.S. Patent No. 6,007,090 to Hosono, et al. in view of U.S. Patent No. 6,832,780 to Amamori.

The rejection, as it may apply to the claims presented herein, is respectfully traversed.

Claim 1 is directed to an airbag apparatus for a motorcycle and calls for a retainer, and an airbag for being deployed in a primarily upward, vertical direction. As amended, claim 1 recites an inflation control device that is generally aligned over and spaced upwardly from the retainer to extend thereover for restricting inflation of the airbag in a predetermined fore and aft direction that is generally aligned with rider movement due to frontal collisions and allowing inflation of the airbag in the upward vertical direction. The inflation control device is sized so that size of the inflated airbag in the upward vertical direction is substantially larger than in the predetermined fore and aft direction. The inflation control device is connected to the airbag at least two positions that are spaced from each other generally along the fore and aft direction and that are at an approximately equal distance from the retainer closer to the airbag upper end portion than to the retainer with the airbag deployed and inflated. None of the relied upon art discloses or suggests the arrangement of an inflation control device as called for in claim 1.

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As mentioned in the Action, the motorcycle airbag of Hosono, et al. does not include an inflation control device for restricting inflation of the motorcycle airbag. For this Amamori is relied upon. However, Amamori discloses a passenger seat airbag 1 for use in a passenger compartment of an automobile. In this regard, Amamori teaches that the airbag 1 is inflated toward the occupant as well as up toward the windshield 22. As can be seen in FIG. 1, the internal member 6 in the Amamori airbag 1 is not aligned over the retainer 10 to extend thereover, as required in amended claim 1. Instead, in Amamori, the internal member 6 is offset toward the occupant side from the retainer 10 in the airbag. Further, FIG. 1 of Amamori shows that the size of the inflated airbag is not substantially larger in the upward vertical direction than in the fore and aft direction. In fact, the Amamori airbag actually larger in the fore and aft direction than in the upward, vertical direction. In addition, Amamori does not have connections of the internal member 6 that are spaced from each other in the fore and aft direction and that are at an approximately equal distance from the retainer. Instead, the internal member 6 has a forward connection at the windshield facing surface 4 of the airbag that is closer to the retainer than the rear connection of the internal member 6 to the occupant facing surface 2 of the airbag. Accordingly, it is believed that claim 1, and claims 2, 3, 5-12, and 24 which depend cognately therefrom, are allowable over the relied upon references.

Claim 13 is amended to call for an airbag apparatus and motorcycle combination that includes a body of the motorcycle having front and rear wheels and a seat for a rider spaced rearward of the front wheel. A retainer has front and rear sides, and an airbag is deployed from the retainer forwardly of the seat in the event of front collisions. At least one direction control member is arranged in the airbag to optimize airbag inflation in a predetermined, upward primary inflation direction. Claim 13 further calls for a plurality of connections between the control

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member and the airbag at predetermined positions on the airbag and spaced from the retainer which restrict inflation of the airbag in a controlled direction generally aligned with forward movement of the rider caused by frontal collisions so that size of the inflated airbag is substantially less in the controlled direction than in the upward, primary inflation direction that is transverse to the controlled direction. As amended, claim 13 states that the greater size of the inflated airbag in the upward direction restrains the rider during a pitching motion of the motorcycle where the rear wheel rises up with the motorcycle body rotating forwardly during frontal collisions. Amended claim 13 further recites that there are connections of the at least one control member that are generally disposed at the front and rear portions of the airbag and are spaced from the corresponding front and rear sides of the retainer such that the front connection and the retainer front side are spaced approximately equal to the spacing between the rear connection and the retainer rear side. None of the cited art discloses or suggests the arrangement of connections of a direction control member as recited in amended claim 13.

As previously mentioned, Hosono, et al. teach a motorcycle airbag but otherwise do not disclose a direction control member as recited in claim 13. Further, the airbag of Hosono, et al. is sized so that it would not be suitable for restraining a rider during a pitching motion of the motorcycle. The Amamori airbag does not have connections of a control member, as recited in amended claim 13. More particularly, the primary inflation direction of the Amamori airbag is not in an upward, vertical direction since the airbag actually is inflated to extend further in the fore and aft direction than in the vertical direction. In this regard, the size of the inflated airbag 1 of Amamori is not substantially less in the corresponding controlled direction aligned with forward movement of the rider than in the upward, primary inflation direction. Instead, the Amamori airbag extends toward the occupant and is larger in this fore and aft direction than it is in the upward, vertical direction when

inflated. With respect to the location of the connections of the internal member 6 relative to the corresponding front and rear sides of the retainer 10, FIG. 1 shows that the distance between the front connection at the windshield facing surface 4 and the corresponding front side of the retainer 10 is closer than the distance between the rear connection at the occupant facing surface 2 and the corresponding rear side of the retainer 10. This is in contrast to the front and rear connections that are approximately equally spaced from the corresponding front and rear sides of the retainer, as called for in amended claim 13. Accordingly, it is believed that claim 13, and claims 16-18 which depend therefrom, are allowable over the relied upon references.

Claim 19 is directed to a method for manufacturing an airbag apparatus for a motorcycle. Claim 19 calls for connecting a first end of a direction control member to the airbag with the first end being spaced by a first predetermined distance from the retainer upon inflation of the airbag, and connecting a second end of the direction control member to the airbag with the second end being spaced by a second predetermined distance from the retainer upon inflation of the airbag that is approximately equal to the first predetermined distance of the first end from the retainer. Claim 19, as amended, further recites mounting the retainer with the airbag therein to the motorcycle so that upon airbag inflation, the inflated airbag distal end portion is positioned for restraining a rider of the motorcycle during a pitching motion thereof.

Hosono, et al. fail to disclose the steps of connecting first and second ends of a direction control member to an airbag as recited in amended claim 19. Further, Hosono, et al. do not disclose mounting the retainer with the airbag therein so that upon inflation the distal end portion of the airbag is positioned for restraining a rider of the motorcycle during a pitching motion thereof. In the Amamori airbag, the ends of the internal member 6 are not connected to the airbag so as to be

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approximately equally spaced from the retainer, as required in amended claim 19. As the Amamori airbag is mounted in an automobile passenger compartment, Amamori does not disclose or suggest mounting a retainer with an airbag therein to a motorcycle, as called for in amended claim 19. Accordingly, it is believed that claim 19, and claims 21 and 22 which depend therefrom, are allowable over the relied upon references.

Based on the foregoing, reconsideration and allowance of claims 1-3, 5-13, 15-22, and 24, are respectfully requested.

Respectfully submitted,

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